

Timeline for Cassini Rev 64 RSS Occultation of Saturn's Rings on April 01, 2008 (DOY 092)

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	ERT UTC OWLT = 1:10:43	SCET	PST ERT-8hrs 7:00:00	Comments
DSS-55: Start Precal	15:15:00	14:04:17	8:15:00	
DSS-63: Start Precal	15:45:00	14:34:17	8:45:00	
DSS-55 & 63 Begin of Track	16:45:00	15:34:17	9:45:00	
SNT Measurements (all bands)	TBD			Diodes need to be OFF before 17:00:00
Start SP Wypoint Turn to Earth Pointing	17:00:43	15:50:00	10:00:43	
TWNC ON/ RNG OFF/ TLM OFF	17:31:39	16:20:56	10:31:39	
Spacecraft HGA is Earth Pointed	17:31:43	16:21:00	10:31:43	Downlink S/X/Ka signals likely detectable before this time
Start Free-Space Baseline	17:31:56	16:21:13	10:31:56	Pc/N0 (X70, X&Ka34, S70) = ~55, 49, 49, and 43 dB
DSS-55: Enable Monopulse	17:32:00	16:21:17	10:32:00	Enable monopulse once receiver is locked
DSS-55: Disable Monopulse	TBD			Real-Time decision
Ring F	17:59:20	16:48:37	10:59:20	Rings F is only detectable in postprocessing
Ring A in	18:00:15	16:49:32	11:00:15	Detectable signals over most of Ring A
Enke Gap	18:01:03	16:50:20	11:01:03	Signals are back very briefly to full strength
Ring A out	18:03:57	16:53:14	11:03:57	Relatively strong signals in the Cassini Division
Ring B in	18:05:08	16:54:25	11:05:08	Signals may be detectable over inner region of Ring B
Ring C in	18:12:26	17:01:43	11:12:26	Signals detectable but briefly blocked by dense ringlets
Ring C out	18:19:40	17:08:57	11:19:40	Pc/N0 (X70, X&Ka34, S70) = ~55, 49, 49, and 43 dB
Top of ionosphere (~68,000 km)	18:29:35	17:18:52	11:29:35	The upper ionosphere will be mixed with the rings
Ring C in	18:30:24	17:19:40	11:30:24	All ring features occultes again in reverse order
Ring B in	18:37:37	17:26:54	11:37:37	Signals likely absent over most of Ring B
Ring B out	18:44:55	17:34:12	11:44:55	Relatively strong signals in the Cassini Division

Ring A in	18:46:06	17:35:23	11:46:06	Detectable signals over most of Ring A Signals are back very briefly to full strength Pc/N0 (X70, X&Ka34, S70) = ~55, 49, 49, and 43 dB Rings F is only detectable in postprocessing "Official" end of the Rev 63 RSS ring occultation
Encke gap	18:49:01	17:38:17	11:49:01	
Ring A out	18:49:48	17:39:05	11:49:48	
Ring F	18:50:43	17:40:00	11:50:43	
At lowest ionosphere radius (62,010 km)	19:01:19	17:50:36	12:01:19	
Back at top of the ionosphere (~68,000 km)	19:33:04	18:22:21	12:33:04	
Free-space baseline (ride along CDA obs'n)	19:33:05	18:22:22	12:33:05	
Start RWA Bias	20:08:43	18:58:00	13:08:43	
End of Rev 60 RSS Observations	20:33:43	19:23:00	13:33:43	
TLM ON/ TWNC OFF/ RNG LOW	20:33:49	19:23:06	13:33:49	
SNT measurement (all bands)	TBD			
DSS-55 & 63: End of Track	21:20:00	20:09:17	14:20:00	
DSS-55 & 63: End of Postcal	21:35:00	20:24:17	14:35:00	

Indicates DSS-55 & 63 Related Activities

All times are based on reference trajectory 070918

Some Ring Edges are known to be noncircular, which will affect ring event times above

Monopulse strategy is to be decided in real-time